Class Tasks A1.1
Database Key Concepts
Suggested Answers

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Class Task 1.1.1 – Data and Information

- Look at the following list of Items for each given scenario.
- Identify whether these are data or information and explain why. The first one has been done for you. If the item is information, what calculations are being carried out?
- Discuss your findings with the group.
- **Time allowed:** 12 minutes.

Scenario 1 – A Vehicle Database for a Car Rental Company.

A company rents out vehicles to customers. Vehicles can have different fuel types (e.g., petrol, diesel or electric). Each vehicle could be a car or van and has a different cost. Customers hire vehicles out on a date and then return them on another date.

Suggested Answers

Item	Data or Information?	Reason
Vehicle Registration Number	Data	Represents a single fact about a vehicle – the registration number
Fuel Type	Data	Represents a single fact about a vehicle – the fuel type, could be Petrol, Diesel or Electric

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Scenario 2 – A DVD Database for a Media Sales Company.

A company has a stock of DVDs for sale both in store and online. The company always has a certain number of these in DVDs in stock and records the number of items sold in any customer order.

Suggested Answers

Item	Data or Information?	Reason
Title	Data	Represents a single fact about a DVD – the title of the film or TV series

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Class Task 1.1.2 – Tables, Columns and Rows

- You have been given two scenarios and some data.
- For each identified data item for each scenario, identify whether it is a table, record, field or cell.
- Discuss your findings with the group.
- **Time allowed:** 10 minutes.

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Scenario 1 – A Vehicle Database for a Car Rental Company.

A company rents out vehicles to customers. Vehicles can have different fuel types (e.g. petrol, diesel or electric). Each vehicle could be a car or van and has a different cost. Customers hire vehicles out on a date and then return them on another date.

tblVehicleRental							
Vehicle Registration	Vehicle Make	Fuel Type	Rental Cost				
RX45 4BP	Ford	Petrol	£49.99				

Suggested Answers

Data Item	Type
BMW	Cell
Vehicle Make	Field

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Scenario 2 – A DVD Database for a Media Sales Company.

A company has a stock of DVDs for sale both in store and online. The company always has a certain number of these in DVDs in stock and records the number of items sold in any customer order.

tblDVDStockItems							
DVD Title	Director	Genre					
Up	Pete Doctor	Animation					
Jaws	Steven Spielberg	Thriller					

Suggested Answers

Data Item	Type
Rating	Field

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Class Task 1.1.3 – Datatypes

- Look at the scenarios given to you.
- For each field, identify the Datatypes as well as any possible alternatives. Justify your selection.
- Discuss your findings with the group.
- **Time allowed:** 10 minutes.

Scenario 1 – A Vehicle Database for a Car Rental Company.

A company rents out vehicles to customers. Vehicles can have different fuel types (e.g., petrol, diesel or electric). Each vehicle could be a car or van and has a different cost. Customers hire vehicles out on a date and then return them on another date.

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tblVehicleRental								
ID	Vehicle Registration	Vehicle Make						
1	RX45 4BP	Ford						
2	AB13 6RF	BMW						

Suggested Answers

Field	Datatype	Alternate Datatype	Justification
ID	Number	Autonumber	The data has to be numerical that changes each column. Because it starts at 1, it could be autonumber.
Vehicle Registration	Short Text	None	Is a mixture of letters and numbers

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Scenario 2 – A DVD Database for a Media Sales Company.

A company has a stock of DVDs for sale both in store and online. The company always has a certain number of these in DVDs in stock and records the number of items sold in any customer order.

tblDVDStockItems								
DVD ID	DVD Title	Director	Genre					
101	Up	Pete Doctor	Animation					
102	Jaws	Steven Spielberg	Thriller					

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Suggested Answers

Field	Datatype	Alternate Datatype	Justification
DVD ID	Number	None	Has to be numerical that changes each column. Cannot be Autonumber as the numbers are not in sequence
DVD Title	Short Text	None	Is just text and single words

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Class Task 1.1.4 – Primary Keys

- Look at the scenarios given to you.
- For each field, identify whether it is a key or non-key field, and the key type.
- Discuss your findings with the group.
- **Time allowed:** 5 minutes.

Scenario 1 – A Vehicle Database for a Car Rental Company.

A company rents out vehicles to customers.

Vehicles can have different fuel types (e.g., petrol, diesel or electric). Each vehicle could be a car or van and has a different cost.

Customers hire vehicles out on a date and then return them on another date.

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tblVehicleRental								
ID	Vehicle Registration	Vehicle Make						
1	RX45 4BP	Ford						

Suggested Answers

Field	Key / Non Key	Key Type
ID	Key	Primary
Vehicle Registration	Non-Key	

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Scenario 2 – A DVD Database for a Media Sales Company.

A company has a stock of DVDs for sale both in store and online.

The company always has a certain number of these in DVDs in stock and records the number of items sold in any customer order.

tblDVDStockItems								
DVD ID	DVD Title	Director						
101	Up	Pete Doctor						

Suggested Answers

Field	Key / Non-Key	Key Type
DVD ID	Key	Primary

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